IN THE CLAIMS

This listing of claims replaces all prior versions and listings of the claims in this application:

1. (Currently amended) A container for holding a fluidic biological sample while undergoing nucleic acid amplification, the container comprising:

a receiving portion having a first volume, the receiving portion being adapted to receive the biological sample therein; and

a reaction portion, the reaction portion ~~having a sealed end~~ comprising a capillary tube that is closed at one end, wherein the capillary tube wall is about 0.1 mm thick, and the reaction portion being in fluidic communication with the receiving portion such that the biological sample placed in the receiving portion can travel to the reaction portion, the reaction portion having an internal volume not greater than a second volume, the second volume being less than the first volume and not greater than 1 milliliter, said ~~and~~ reaction portion comprised of material having a thermal conductivity in the range from about 20 to about 35 in accordance with the formula: $\left(\frac{cal\ cm}{cm^2 s \text{degree } C}\right) x10^4$.

2. (Previously presented) A container as defined in claim 1 wherein the receiver portion comprises a plastic material.

3. (Previously presented) A container as defined in claim 1 wherein the receiver portion comprises a plastic material formed in a funnel structure.

4. (Original) A container as defined in claim 1 further comprising a stopper, the stopper being removably inserted into the receiving portion.

5. (Currently Amended) A container as defined in claim 1 wherein the

capillary tube is a glass capillary tube having an inner diameter of about 0.8 mm and an outer diameter of about 1.0 mm and the second volume is not greater than about 10 μℓ.

6. (Original) A container as defined in claim 1 wherein at least a portion of the reaction portion is transparent.

7. (Currently amended) A container for holding a fluidic biological sample while undergoing nucleic acid amplification, the container comprising:

a reservoir having a first volume, the reservoir adapted to receive the biological sample therein; and

a reaction portion~~, the reaction portion comprising a capillary tube~~ having a ~~first sealed end~~ second volume, an open end and a closed end, wherein the closed end is formed to optimize optical transmissibility for light having a wavelength of about 400 nm to about 800 nm, and the open end of the reaction portion is ~~and being~~ in contact with, and in fluidic communication with the reservoir such that the biological sample placed in the reservoir can travel to the reaction portion, ~~the reaction portion having an internal volume not greater than a second volume,~~ the second volume being not greater than ~~10,000 μℓ and~~ 1 milliliter, wherein said reaction portion has a volume to surface ratio of less than 1 mm and is comprised of material having a thermal conductivity in the range from about 20 to about 35 in accordance with the formula: $\left(\frac{cal\ cm}{cm^2 s\ \text{degree}\ C}\right) x10^4$.

8. (Canceled).

9. (Currently amended) The container of claim ~~8~~ 7 wherein the second volume is between about .01 μℓ to about 100 μℓ.

10. (Currently amended) The container of claim 7 wherein the reaction portion comprises a glass capillary tube having a 0.8 mm inner diameter and a 1.0 mm outer

diameter.

11. (Currently amended) The container of claim 10 wherein the reservoir ~~further~~ comprises a funnel shaped portion and the capillary tube comprises a ~~sealed~~ closed first end and a flared second end, the flared second end for receiving the funnel shaped portion of the reservoir.

12. (Currently amended) The container of claim ~~11~~ 10 wherein the ~~sealed~~ closed first end comprises a flat tip.

13 and 14. (Canceled)

15. (Currently amended) The container of claim ~~14~~ 7 wherein the reaction portion has a volume to surface ratio of less than 0.25 mm.

16. (Currently amended) The container of claim 7 wherein at least a portion of the reaction portion is comprised of a material that is optically transmissible for light having a wavelength of about 400 ~~800 mm~~ to about 800 nm.

17. (Original) The container of claim 7 further comprising a stopper for sealing the sample within the container.

18. (Original) The container of claim 17 wherein the stopper is formed to fit at least partially within the reservoir.

19. (New) The container of claim 1 wherein the capillary tube has an inner diameter in the range from about 0.02 mm to about 0.1 mm.

20. (New) The container of claim 1 wherein the closed end is formed to optimize optical transmissibility for light having a wavelength of about 400 nm to about 800 nm.

21. (New) A container for rapidly heating and cooling a fluidic biological

sample contained therein, the container comprising:

a receiving portion defining a first internal volume, the receiving portion being adapted to receive the biological sample therein; and

a reaction portion, comprising a capillary tube that is closed at one end, wherein the closed end is formed for optical transmissibility through the closed end, said reaction portion being in fluidic communication with the receiving portion such that the biological sample placed in the receiving portion can travel to the reaction portion, the reaction portion having an internal volume not greater than a second volume, the second volume being less than the first volume and not greater than 100 $\mu\ell$.

22. (New) The container of claim 21 wherein the capillary tube wall is about 0.1 mm thick.